

## CLAIMS

1. Form II 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder diffraction pattern as  
5 Figure 2, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation.

2. A crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in  
10 terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions selected from the group consisting of at five or more of the following positions: 7.91  
15  $\pm 0.09$ , 17.33  $\pm 0.09$ , 18.23  $\pm 0.95$ , 19.60  $\pm 0.09$ , 21.88  $\pm 0.09$ , 23.24  $\pm 0.09$ , 23.92  $\pm 0.09$ , 25.27  $\pm 0.09$ , 27.70  $\pm 0.09$ , and 29.21  $\pm 0.09$  degrees.

3. 5,6,-Dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole ethanol solvate having substantially the same X-ray powder diffraction pattern as  
20 Figure 3, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation.

4. Ethanol solvate of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in  
25 terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions selected from the group consisting of at five or more of the following positions: 9.07

$\pm 0.05$ ,  $10.38 \pm 0.05$ ,  $15.95 \pm 0.05$ ,  $17.72 \pm 0.05$ ,  $20.75 \pm 0.05$ ,  $21.37 \pm 0.05$ ,  $22.96 \pm 0.05$ ,  $23.93 \pm 0.05$ ,  $25.40 \pm 0.05$ , and  $29.05 \pm 0.05$  degrees.

5. Form V 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-

5 benzimidazole having substantially the same X-ray powder diffraction pattern as Figure 5, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation.

10 6. A crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions  
15 selected from the group consisting of at five or more of the following positions:  
 $13.30 \pm 0.05$ ,  $18.13 \pm 0.05$ ,  $18.78 \pm 0.05$ ,  $20.41 \pm 0.05$ ,  $21.75 \pm 0.05$ ,  $23.02 \pm 0.05$ ,  $26.87 \pm 0.05$ ,  $28.34 \pm 0.05$ ,  $28.55 \pm 0.05$ , and  $30.22 \pm 0.05$  degrees.

7. A composition comprising an admixture of two or more forms or solvates of  
20 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole according to any of claims 1-6.

8. A composition comprising Form II 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole according to Claim 1 and amorphous 5,6,-dichloro-2-  
25 (isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole.

9. A composition comprising Form I 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder diffraction pattern as Figure 1 and Form V 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-  
30 ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder

diffraction pattern as Figure 5, wherein said X-ray powder diffraction patterns are obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K $\alpha$  X-radiation.

- 5 10. The composition according to claim 9, further comprising Form IV 5,6,-  
dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole characterized by  
the X-ray powder diffraction pattern expressed in terms of 2 theta angles and  
obtained with a diffractometer equipped with a diffracted beam curved graphite  
monochromator using copper K $\alpha$  X-radiation, wherein said X-ray powder diffraction  
10 pattern comprises 2 theta angles at five or more positions selected from the group  
consisting of at five or more of the following positions:  $9.29 \pm 0.05$ ,  $16.04 \pm 0.05$ ,  $18.67$   
 $\pm 0.05$ ,  $22.06 \pm 0.05$ ,  $22.68 \pm 0.05$ ,  $23.34 \pm 0.05$ ,  $24.40 \pm 0.05$ ,  $29.64 \pm 0.05$ ,  $30.92 \pm 0.05$ ,  
and  $31.62 \pm 0.05$  degrees.
- 15 11. A pharmaceutical composition comprising a compound as claimed in any one  
of claims 1 to 6 and at least one pharmaceutically acceptable carrier therefor.
12. 5,6,-Dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole as  
claimed in any one of claims 1 - 6 for use in medical therapy.
- 20 13. Use of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-  
benzimidazole as claimed in any one of claims 1 to 6 in the preparation of a  
medicament for the treatment of a viral infection.
- 25 14. A method for the treatment of a viral infection a human which comprises  
administering to the human host, an effective antiviral amount of a solvate or  
crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-  
benzimidazole as claimed in any one of claims 1 to 6.

15. A process for the production of 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole in an anhydrous crystalline form said process comprising the steps of:

a) providing 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole in solution either in free base or salt form;

b) isolating 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole from the solution and optionally removing unbound solvent leaving the 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole in substantially dry form;

c) treating 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole with a solubilising solvent serving to convert an amount of said optionally dried 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole into said 5,6,-dichloro-2-(isopropylamino)-1- $\beta$ -L-ribofuranosyl-1H-benzimidazole anhydrous crystalline form; and

d) isolating said anhydrous crystalline form.